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NEW TESTING TECHNIQUES MAKE CANADIAN ROADS SAFER

Montréal / April 20, 1988 --- Concordia University Mechanical Engineering Professor Suong Hoa has been awarded a $45,000 grant from the Québec government to develop new testing techniques to improve the safety of tanker trucks on Canadian roads.

Using high-frequency sensors, Hoa can detect "acoustic emissions" (i.e., sound waves) emanating from growing cracks in the fibre-reinforced plastic used to line tanks carrying chemicals and other potentially dangerous liquids.

Until now government safety inspectors have had no accurate testing procedures to determine the extent of damage in fibre-reinforced plastic tankers. Hoa's acoustic test can pinpoint structural flaws in tanker trucks carrying chemicals and other possibly dangerous liquids and allow them to be repaired at a fraction of the cost of replacing entire tanks.

His research is the first of its kind in Canada; Hoa says that his team is the only one capable of performing the acoustic emission test on fibre-reinforced plastic vessels.

Composed of glass or carbon fibres and epoxy or polyester resins, these reinforced plastic materials are resistant to corrosion, and are thus ideal for transporting liquids that corrode the metal tanks used to haul oil, chemicals, and even seemingly harmless substances like milk.

The applications and implications of Hoa's work go far beyond trucks, however. Fibre-reinforced plastic composites are also found in automobiles, aircraft, satellites, and even some components on the space shuttle. In every case they are used because of their considerable strength, stiffness and light weight.

- 30 -

Media representatives requiring additional information should contact DIANE McPEAK, Public Relations Officer, at (514) 848-4883.